



**NATO RESEARCH & TECHNOLOGY
ORGANIZATION**

SENSOR & PROPAGATION PANEL

7 rue Ancelle, 92200 Neuilly-sur-Seine, France

Telephone: +33 (0)1 55612268 - Telex: 610176 - Fax: +33 (0)1 556122 99/98

SPP

26th May, 1997

CALL FOR PAPERS

for the

SENSOR AND PROPAGATION PANEL

SYMPOSIUM

on

E-O PROPAGATION, SIGNATURE AND SYSTEM PERFORMANCE UNDER ADVERSE
METEOROLOGICAL CONDITIONS, CONSIDERING OUT-OF-AREA OPERATIONS

At least one session will be classified up to:
NATO SECRET

to be held in

Naples

ITALY

16-19 March 1998

(subject to final confirmation)

Abstracts must be received by the Members of the Technical
Programme Committee AND the SPP Executive not later than
15 September, 1997

(US Authors: Note Requirements for National Clearance Procedures for Abstracts)

NOTE:

PARTICIPANTS FROM NON-NATO NATIONS AND PARTNERSHIP FOR PEACE
COUNTRIES MAY APPLY TO ATTEND THE UNCLASSIFIED SESSIONS OF THIS
MEETING. Authors should take this into consideration when evaluating the classification level
of the material they intend to present and publish.

E-O PROPAGATION, SIGNATURE AND SYSTEM PERFORMANCE UNDER ADVERSE METEOROLOGICAL CONDITIONS

(At least one session of the symposium will be classified up to
NATO SECRET)

SYMPOSIUM THEME

During 'favorable' weather conditions the operational performance of the majority of the UV, visible and IR Wave weapon systems that are used by NATO forces is nominally equivalent to the performance that is achieved by most opposing forces. However, the most important factor in weapon system design is very often not the final performance of a system but the performance differential between the system and the threat. In the presence of adverse weather conditions, for example, rain, fog, snow and cloud, the performance of systems will be degraded but it may be possible, by way of an improved understanding of adverse weather conditions, that a performance differential can be achieved. It is reported that the success of Desert Storm was, in part, achieved by the differential superiority of the coalition forces.

Historically, both the threat and the location of the next conflict was "assumed", and systems were optimised accordingly. However, the concept of modern Rapid Reaction Forces troops may now be deployed in any location, including desert, arid, and polar regions. In these regions systems that were once optimised for use in temperate locations may now prove to be sub-optimal. In particular electro-optic systems that were optimised for use in specific scenarios will now not operate to their full capability.

Topics to be considered:

- Theoretical and practical aspects of atmospheric propagation under adverse conditions
- Out-of-area operations, variations in weather conditions and propagation phenomena
- System optimisation techniques for out-of-area applications
- Modelling techniques
- Measurement programmes, including existing collaborations
- Applications of dual use technologies for adverse conditions (military-commercial)

Importance to NATO:

Rapid Reaction Forces may be deployed, at short notice, in diverse locations. The performance of electro-optical systems is dependent upon prevailing meteorological conditions, therefore electro-optic systems that were optimised for a specific type of weather conditions may now be sub-optimal when operating in other conditions. Many of the issues related to out-of-area operations in 'desert' type locations have been detailed in NATO DRG a/c (Panel 4/TR/1 9(Hot And Dusty Environment Survey (HADES))).

The ability to maintain weapon system performance during adverse weather conditions is essential. A small improvement in performance may yield a significant advantage under such conditions. It is of considerable importance to NATO that the full impact of out-of-area operations on electro-optic system performance is addressed.

TECHNICAL PROGRAMME COMMITTEE
CHAIRMEN

Dr.J.H. RICHTER
Head, Propagation Division
NRaD Code D88
San Diego
CA 92152-5230
UNITED STATES
Tel: (1) 6195533053
Fax: (1) 6195533058
Email: richter@nosc.rnil
URL: <http://sunspot.nose.rnil>

Prof. J. ROGGE
Royal Military Academy Breda
Kastelplein 10
4811 XC Breda
THE NETHERLANDS
Tel: (31) 765273298
Fax: (31) 765273259
Email: j.rogge@kma.nl

Mr. A. R TOOTH
Senior Principal Scientist
Sowerby Research Centre
British Aerospace (Operations Ltd)
FPC 267, PO Box 5, Filton, Bristol BS12 7QW
UNITED KINGDOM
Tel: (44) 1179363095
Fax: (44)117 9363733
Email: andy.tooth@src.bae.co.uk

MEMBERS

Dr. G. P. ANDERSON
AFRL/Geophysics Directorate
PL/GPOC, 29 Randolph Road
HanscomAFB, MA01731-3010
UNITED STATES
Tel: (1) 6173772335
Fax: (1) 6173778900
Email: ganderson@plh.af.mil

Dr. D. CLEMENT
FGAN-Research Institute for Optics
Schloss Kressbach
D-73072 Tuebingen
GERMANY
Tel: (49) 7071709150/151
Tel: (49) 7071709270
Email: clement@ffo.fgan.de

Mr. D. DION
CRDV/DREV
2459 Pie-XI Nord
Val-Belair (Qc)
CANADA G3J1X5
Tel: (1) 418 8444231
Fax: (1)418 8444511
Email: denis.dion@drev.dnd.ca

Dr. A. K. GOROCH
NRL Code 7543
Monterey
CA 93943
UNITED STATES
Tel: (1) 4086564889
Fax: (1) 4086564769
Email: goroch@nrlmry.navy.rnil

Mme. A-M BOUCHARDY
Thomson-CSF Optronique
Rue Guynemer -BP 55
78283 Guyancourt Cedex
FRANCE
Tel: (33) 130967185
Fax: (33) 130967635

Lt. Colonel D. M. FERNANDEZ
Jefe Area de Satelites de Observacion
INTA
Carretera Torrejon-Ajalvir, Km 4
28850 Torrejon de Ardoz (Madrid)
Tel: (34) 1520.19.53
Fax: (34) 1520.13.84
Email: [fernandezamm\(@\)inta.es](mailto:fernandezamm(@)inta.es)

PANEL EXECUTIVE: Lt-Col. G. DEL DUCA * omit O when calling from outside France
Tel: 33 (0)*1 55 612268 Fax: 33 (0) 55612299 Email: delduca@agard.nato.int
from Europe from USA & Canada
AGARD AGARD-NATO / SPP
ATTN: SPP Exec. PSC 116
7, rue Ancelle APO AE 09777
92200 Neuilly/Seine, FRANCE

ABSTRACTS

Abstracts of papers offered for this Symposium are now invited and should be submitted in the following format:

	TITLE OF PAPER
	Name of Author/Co-Author(s)
	Company/Affiliation
	Complete address
A. LENGTH	200 to 500 words
B. CONTENT	Scope of the Contribution
	Relevance to the Meeting
	Your abstract should fully represent your contribution
C. IDENTIFICATION -	Information on Attachment 1 must be provided with all abstracts.
D. SUBMITTAL	By all authors (US Residents see Attachment 2)
E. CLASSIFICATION -	Abstracts should be unclassified.

Abstracts and Attachment 1 should be mailed in time to reach all member of the Technical Programme Committee and the Executive not later than 15 September, 1997. This date is important and must be met to ensure consideration.

PUBLICATIONS

The Final Conference Proceedings will contain all papers presented and questions and answers that follow the presentations.

In order to have the final Proceedings issued in the Fall of 1998, all manuscripts and national publication authorizations are required by 1 MARCH 1998. It should be noted that AGARD reserves the right to print in the Proceedings any paper presented at the Meeting.

Further details will be provided to those authors whose contribution will be accepted by the Technical Programme Committee for this meeting.

QUESTIONS

Questions concerning the technical programme should be addressed to the Technical Programme Committee while administrative questions should be sent directly to the Panel Executive.

GENERAL INFORMATION

This meeting, supported by the Sensor and Propagation Panel, will be held in Italy in March, 1998.

It is expected that about 40 papers will be presented. Each author will normally have 20 minutes for presentation and 10 minutes for questions and discussions. Equipment will be available for projection of 35 mm slides, viewgraph transparencies and video cassettes. Investigation on further facilities will be done during a technical previsit to the meeting site.

The audience will include Members of the Sensor and Propagation Panel and about 100 invited experts from the NATO Nations. Attendance at AGARD Meetings is by invitation only from AGARD National Delegates and from Panel Members.

Final manuscripts should be limited to 12 sheets only of camera-ready paper including figures. Complete instructions will be sent by AGARD to authors of papers selected by the Technical Programme Committee.

Authors submitting abstracts should ensure that financial support for attendance at the meeting will be available.

CLASSIFICATION

At least one session of this meeting will be classified NATO SECRET.

LANGUAGES

Papers may be written and presented either in English or French. Simultaneous interpretation will be provided between these two languages at all sessions.

IMPORTANT

AGARD-SPP SYMPOSIUM, March 1998, Naples, ITALY

PRO-MEMORIA OF THE GENERAL SCHEDULE OF THE EVENTS

DEADLINES

AUTHORS TO.

MAY/JUNE 1997

RECEIVE CALL FOR PAPERS

15 SEPTEMBER 1997

SUBMIT AUTHORS INFORMATION FORM

(Attachment 1)

SUBMIT ABSTRACT(S)

DECEMBER 1997

START NATIONAL PROCEDURE TO OBTAIN

PUBLICATION / PRESENTATION AUTHORIZATION

(The Publication/Presentation Clearance Certificate is attached to the Instructions to Authors to be sent in May/June 1997)

DECEMBER 1997

RETURN AUTHORS REPLY FORM TO AGARD

(Attached to Instructions to Authors)

1 MARCH 1998

SUBMIT CAMERA-READY MANUSCRIPT AND

PUBLICATION/PRESENTATION CERTIFICATE TO

AGARD-SPP

THE TECHNICAL PROGRAMME COMMITTEE WILL SELECT

THE PAPERS AND NOTIFY THE AUTHORS IN .

OCTOBER 1997

THE MEETING ANNOUNCEMENTS WILL BE DISTRIBUTED IN.. DECEMBER 1997

***TO BE POSTED IN A PROMINENT LOCATION FOR
PERIODICAL CHECKING***

AUTHOR INFORMATION FORM
FOR

AUTHOR SUBMITTING AN ABSTRACT FOR THE
SENSOR PROPAGATION PANEL SPECIALISTS’ MEETING

E-O PROPAGATION, SIGNATURE AND SYSTEM PERFORMANCE UNDER ADVERSE
METEOROLOGICAL CONDITIONS, CONSIDERING OUT-OF-AREA OPERATIONS

INSTRUCTIONS

1. All authors are required to send a copy of this completed form to ALL individuals listed on the Technical Programme Committee and the Executive by 15 September, 1997.
2. All non United States authors are required to attach a copy of their abstract to this form before it is mailed.
 - a. Probable Title of Paper and probable Classification Level:
 - b. Paper most appropriate for Topic:
 - c. Full name of Author to be listed first on Programme, including courtesy title (specify nationality):
 - d. Names of Co-Authors, including courtesy titles (specify nationality):
 - e. French authors are requested to submit the title of their paper in french and in english
 - f. Address for return correspondence:

Telephone Number:
Telex or TWX Number:
Telefax Number:
Email:

Date: Signature:

DUE NOT LATER THAN 15 SEPTEMBER 1997

FOR US AUTHORS ONLY

ABSTRACTS OF PAPERS FROM US AUTHORS MUST BE SENT TO:

Dr J.H. RICHTER (National Panel Coordinator)
Head, Ocean & Atmospheric
Sciences Division
NCCOSC
RDT&E Division
Code D88
SAN DIEGO, CA 92152-5230

Telephone (619) 553-3053 AV 553-3053
Telefax (619) 553-3058
Email richter@nosc.mil
URL: <http://sunspot.nose.mil>

1. Authors of US papers involving work performed or sponsored by a US Government Agency must receive clearance from their sponsoring agency. These authors should allow at least six weeks for clearance from their sponsoring agency.
2. All other US authors should include the following statements in the cover letter:
 - A. The work described was not performed under sponsorship of a US Government Agency.
 - B. The abstract is technically correct.
 - C. The abstract is unclassified.
 - D. The abstract does not violate any proprietary rights.
3. US authors should send abstracts to Dr Richter and Not to the Technical Programme Committee.
4. US authors should send the Author Information Form (Attachment 1) to Dr Richter, Technical Programme Committee Members, and the AGARD-SPP Executive in time to meet the deadlines.
5. Authors selected from the United States are reminded that their full papers must be cleared by an authorized national clearance office before they can be forwarded to AGARD. Clearance procedures should be started at least 12 weeks before the paper is to be mailed to AGARD.
Dr Richter will provide additional information at the appropriate time.